

Claim Listing

Claims 2-21 were pending. Please cancel claims 2-8 and 11-15, so that the remaining pending claims are 9-10 and 16-21.

1-8. (Canceled)

9. (Currently amended) ~~A system as in claim 6,~~ A foundation support system comprising a form means configured to receive a cementitious material in a fluid form for subsequent curing, said form means dimensioned so that said cementitious material, after it has cured, is shaped on a lower portion so as to cleave soil if said soil heaves, wherein (a) said form means comprises an upper section and a lower section, (b) said lower section has a first hole in alignment with a second hole in said upper section, and (c) said first hole has a cross-sectional area different from that of said second hole; and

further comprising a linearly-tapered dowel configured to be inserted into said form means and pressure-fit into said first and second holes.

10. (Previously presented) A system as in claim 9, wherein at least one end of said dowel has a tapping point for loosening said dowel after said cementitious mixture has set.

11-15. (Canceled)

16. (Currently amended) ~~A system as in claim 15,~~ A foundation support system comprising a form means configured to receive a cementitious material in a fluid form for subsequent curing, said form means dimensioned so that said cementitious material, after it has cured, is shaped on a lower portion so as to cleave soil if said soil heaves, wherein said form means comprises three or more approximately vertical sides;

wherein (a) said form means comprises a first side and a second side, (b) said first side has a first hole in alignment with a second hole in said second side, and (c) said first hole has a cross-sectional area different from that of said second hole; and

further comprising a linearly-tapered dowel configured to be inserted into said form means and pressure-fit into said first and second holes.

17. (Previously presented) A method for providing foundational support resistant to soil heave, comprising the steps of:

forming a cementitious material using a form, wherein (a) said form has at least two sides and is dimensioned so that said cementitious material, after it has cured, is shaped on a lower portion so as to cleave soil when said soil heaves, (b) a first side of said form has a first

hole in alignment with a second hole in a second side of said form, (d) said first hole has a cross-sectional area different from that of said second hole, (e) a linearly-tapered dowel pin has been inserted into said form and pressure-fit into said first and second holes;

removing said linearly-tapered dowel pin from said cementitious material and said form after said cementitious material has set, thereby forming a tapered cavity in said cured cementitious material,

after said cementitious material has cured, inserting a pile into said tapered cavity, wherein said pile has a maximum cross-sectional area less than that of the larger of said first and second holes.

18. (Previously presented) A method as in claim 17, further comprising embedding a plurality of corrugated steel fibers in said cementitious material for primary reinforcing.

19. (Previously presented) A method as in claim 17, wherein said first side of said form is comprised in an upper section of said form and said second side of said form is comprised in a lower section of said form.

20. (Previously presented) A method as in claim 17, further comprising driving said pile into soil until said pile penetrates said soil at or below a frost line.

21. (Previously presented) A method as in claim 17, further comprising driving said pile into soil until said pile penetrates said soil at or below a heaving line.